

REMARKS

Claim 1 has been amended to recite that the polymer does not contain bromine. Support is found, for example, at page 9, lines 17-18 ("From the viewpoint of high crosslinking reactivity, it is preferable that the polymers mainly contain iodine rather than bromine.").

Review and reconsideration on the merits are requested.

Claims 1-11 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,346,300 to Ruepping.

The Examiner considered Ruepping as meeting the terms of the rejected claims, including polymer compositions containing both bromine and iodine functional monomers as cure sites, which reference is also said to teach gaskets and coatings.

Applicants traverse, and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

Ruepping discloses a fluoroelastomer composition comprising an elastomer containing brominated olefin, a multi-functional crosslinking agent and a photoinitiator.

Although Ruepping describes the possibility of copolymerizing a monomer containing bromine or iodine, only a bromine-containing monomer is actually discussed. None of the 22 working examples of Ruepping describes a polymer composition meeting the terms of present claim 1. Moreover, claim 1 has been amended to exclude bromine to further clarify this distinction. Therefore, it is respectfully submitted that the claims as amended herein are not anticipated by Ruepping.

Aside from the above, Ruepping also does not recognize or otherwise disclose the advantage of employing a polymer containing iodine and not containing bromine to thereby

promote the crosslinking reaction as compared to one containing bromine. In this regard, as shown by the comparative test data in the Rule 132 Declaration filed September 2, 2004, when a copolymer composition comprising an iodine-containing polymer is crosslinked by ultraviolet rays, the resulting properties such as tensile strength, elongation and 100% modulus (M100) are remarkably superior as compared to those of a polymer composition comprising a bromine-containing polymer which is crosslinked by ultraviolet rays. The reason therefor is that iodine atom is far superior to bromine atom in terms of efficiency as a crosslinking reaction site.

The above applies not only for photopolymerization using a photoinitiator as the crosslinking agent, but also for peroxide crosslinking (thermal crosslinking) using a peroxide as the crosslinking agent. When a composition containing a bromine-containing polymer is crosslinked by a peroxide, properties such as tensile strength are insufficient and usually, in order to trap hydrofluoric acid that is generated under high temperature, an acid acceptor such as magnesium oxide and calcium hydroxide is added to the composition. In such case, the same properties as those obtained when an iodine-containing polymer is used can be maintained.

However, in the photopolymerization, an acid acceptor cannot be added to the composition. This is because light does not sufficiently permeate and photopolymerization does not occur with addition of an acid acceptor. Therefore, when conducting photopolymerization, even if a polymer composition comprising a bromine-containing polymer is crosslinked, the same properties as those of an iodine-containing polymer cannot be maintained.

Consequently, when a polymer composition comprising an iodide-containing polymer is crosslinked by ultraviolet rays, the properties of the crosslinked article thus obtained differ, in an unobvious way, from those of a polymer composition comprising a bromine-containing polymer.

Moreover, Ruepping does not disclose the crosslinked article or gasket obtained by subjecting the ultraviolet-crosslinkable polymer composition comprising a polymer containing iodine to ultraviolet irradiation as claimed in claims 4, 5 and 7-10.

For the above reasons, it is respectfully submitted that the present claims are neither anticipated nor obvious over Ruepping, and withdrawal of the foregoing rejection is respectfully requested.

Withdrawal of all rejections and allowance of claims 1-11 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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